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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/728,599

12/04/2003

Yong Yang

11419-003-999

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31013 7590 12/27/2006
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EXAMINER

RONESI, VICKEY M

ART UNIT

PAPER NUMBER

1714

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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3 MONTHS

12/27/2006

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/728,599

Applicant(s)

YANG ET AL.

Examiner

Vickey Ronesi

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 58-77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 58-77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 10/2/06.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. All outstanding rejections are withdrawn in light of applicant's amendment filed on 10/2/2006.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on 10/2/2006. In particular, claim 58 is amended to exclude latex paints. Thus, the following action is properly made final.

Claim Rejections - 35 USC § 103

4. Claims 58-65 and 68-74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US 4,421,902, cited on IDS dated 12/4/2003).

Chang et al discloses emulsion copolymers for use in pigment dispersions (col. 7, lines 35-36; col. 10, lines 12-36) derived from 10-70 wt % acid monomer (col. 4, lines 51-54); 0.5-25 wt % surfactant monomer of alkyl poly(oxyethylene) poly(carbonyloxyethylene) acrylates including one with an alkylphenyl moiety (col. 4, lines 55-68), and at least 30 wt % ethylenically unsaturated monomer such as acrylates (col. 5, lines 1-15), wherein the polymer can be polymerized in organic-aqueous solvents (col. 4, lines 39-46) and the copolymer may be used with other nonionic and anionic surfactants (col. 8, lines 17-25). In the example (col. 10, lines 11-36), titanium dioxide is the exemplified pigment and the additional dispersant (i.e., surfactant) is TAMOL® 731 which is a polyacrylic acid salt (col. 10, line 17).

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Given that Chang et al discloses a pigment dispersion for use in making water-based paint containing pigment and a copolymer surfactant containing acid monomer, acrylate monomer, and a surfactant monomer in amounts which overlap with the presently claimed ranges, it would have been obvious to one of ordinary skill in the art to obtain a colorant composition which is capable of causing the Stormer low-viscosity viscosity of an aqueous latex paint formed of a mixture comprising pigment dispersion and a tint-base to be within about \pm 10% of the Stormer low-shear viscosity of the tint-base by itself.

5. Claims 60, 65-67, 69, and 74-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US 4,421,902, cited on IDS dated 12/4/2003) in view of Carpenter et al (US 5,527,614).

The discussion with respect to Chang et al in paragraph 4 above is incorporated here by reference.

Chang et al fails to disclose organic pigments or an inorganic pigment other than titanium dioxide, however, Chang et al teaches that its pigment dispersion is used to make latex paints (col. 10, lines 11-14).

Carpenter et al discloses pigment dispersion for use in aqueous paints and teaches pigments generally known in the art in col. 8, lines 15-34 (e.g., carbon black, metallized and non-metallized azo reds, etc) and that the chosen pigment depends on the desired color (col. 8, lines 35-38).

Given that the pigment dispersion of Chang et al is used to color latex paints, it would have been obvious to one of ordinary skill in the art to utilize the known pigments as taught by

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Carpenter et al in the pigment dispersion of Chang et al to obtain a composition with a desired color.

6. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US 4,421,902, cited on IDS dated 12/4/2003) in view of Robinson (US 5,874,495).

The discussion with respect to Chang et al in paragraph 4 above is incorporated here by reference.

Chang et al fails to disclose tristyrylphenylpoly(ethyleneoxy) methacrylate as the surfactant monomer, however, it discloses the use of alkyl poly(oxyethylene) poly(carbonyloxyethylene) acrylates.

Robinson discloses a surfactant for use in aqueous slurries and colloidal dispersion of water-insoluble inorganic and organic material and teaches that an ethylenically unsaturated nonionic biphilic monomer such as tristyrylpoly(ethyleneoxy) methyl acrylate in a surfactant copolymer like disclosed by Chang et al (col. 4, line 58 to col. 5, line 42) is advantageous because it provides for stable aqueous dispersions at various pH levels (abstract, col. 6, lines 22-29).

Given that a tristyrylpoly(ethyleneoxy) methyl acrylate comonomer provides for a pH response surfactant copolymer as taught by Robinson and further that Chang et al is open to the use of alkyl poly(oxyethylene) poly(carbonyloxyethylene) acrylates as the surfactant monomer, it would have been obvious to one of ordinary skill in the art to utilize tristyrylpoly(ethyleneoxy) methyl acrylate as the surfactant monomer of Chang et al to have a pH response copolymer.

Response to Arguments

7. Applicant's arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vickey Ronesi whose telephone number is (571) 272-2701. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 5:00 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10/19/2006
Vickey Ronesi



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